

**REMARKS**

Initially, in the Office Action dated May 20, 2005, the Examiner objects to the Information Disclosure Statement because the references were not listed on a Form PTO-1449. The Examiner objects to the specification because of informalities. The Examiner objects to claim 1 because of informalities. Claims 1 and 2 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,778,703 (Zlotnick) and U.S. Patent No. 5,276,742 (Dasari et al.).

By the present response, Applicant has canceled claims 3-5 without disclaimer. Further, Applicant has amended claim 1 to further clarify the invention. Claims 1 and 2 remain pending in the present application.

**Information Disclosure Statement**

The Examiner has objected to Applicant's filed Information Disclosure Statement because the references were not listed on a Form PTO-1449. Applicant has submitted an appropriate PTO 1449 form and respectfully request that this objection be withdrawn and the cited references be considered by the Examiner.

**Specification Objections**

The Examiner has objected to the specification because of informalities. Applicant has amended the specification to further clarify the invention and respectfully request that these objections be withdrawn.

Claim Objections

Claim 1 has been objected to because of informalities. Applicant has amended this claim to further clarify the invention and respectfully request that this objection be withdrawn.

35 U.S.C. §103 Rejections

Claims 1 and 2 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Zlotnick and Dasari et al. Applicant respectfully traverses these rejections.

Zlotnick discloses a method for processing an input image that includes automatically selecting reference areas on each of a plurality of different templates. Reference areas on the input image are compared to the selected reference areas on at least some of the templates, so as to identify the template that most closely matches the input image, and information is extracted from the input image based on the identified template. Typically, the input image is an image of a form document, having fields defined by one of the templates, which fields are filled in with the information. The input image is registered with the identified template in order to extract the information from the fields.

Dasari et al. discloses a method and apparatus for automatic page orientation of a scanned image which compares the number of character ascending pixels to the number of character descending pixels in the image to determine if the image is properly aligned or is 90 degrees or 180 degrees out of orientation. The method and apparatus includes morphologically processing the bitmap of the scanned image

using structuring elements for isolating the character ascenders and descenders. When page orientation is improper, the bitmap image of the scanned image is rotated to correct the misalignment.

Regarding claim 1, Applicant submits that none of the cited references, taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of this claim of, inter alia, of extracting a coordinate, as an input feature, of a center of each of the cells, lines, or character lines as said features of the form, rotating either said inputted feature or a registered feature of a form which has previously been registered on a 90° unit basis, correcting said inputted feature by a micro angle on the basis of a micro inclination angle detected from the cells, lines or character lines, or checking a matching of the inputted feature with the registered feature. Zlotnick merely discloses a template matching method. More specifically, in Zlotnick reference areas are chosen for matching purposes (see, col. 9, lines 16, 17 and 22-34) but on the other hand, boxes and lines having wide enough spaces are excluded from the reference areas because character may be filled therein (col. 9, lines 31-34). This is not extracting a coordinate, as an input feature, of a center of each of the cells, lines, or character lines as said features of the form, as recited in the claims of the present application. The Examiner cites col. 10, lines 5-8 of Zlotnick, however, this merely discloses only dividing an image of template into blocks and nothing else. By using an icon which is constructed using pixels in the block (see Fig. 4), Zlotnick performs matching (see a portion of the

description relating to Fig. 8 for an example). Zlotnick does not teach or suggest the use of the “center coordinate”, as recited in the claims of the present application.

Moreover, the Examiner asserts that Zlotnick teaches rotating at col. 11, lines 57-62 of. However, this portion of Zlotnick merely describes shifting the row and column histograms (see col. 11, line 66 et. seq.). This is not rotating either said inputted feature or a registered feature of a form which has previously been registered on a 90° unit basis, as recited in the claims of the present application. Zlotnick merely discloses shifting, not rotation.

The Examiner admits that Zlotnick does not disclose or suggest rotating on a 90° unit basis, but asserts that Dasari et al. discloses these limitations at col. 7, lines 59-62. However, Dasari et al. merely teaches an automatic page orientation method for correcting an orientation of an image. Dasari et al. determines the orientation from the number of ascenders and descenders (see, col. 3, lines 4-7). Fig. 4 shows concrete examples of determining the number of ascenders etc. This is not extracting a coordinate, as an input feature, of a center of each of the cells, lines, or character lines as said features of the form and rotating either said inputted feature or a registered feature of a form which has previously been registered on a 90° unit basis, as recited in the claims of the present application.

The limitations in the claims of the present application include: the use of the coordinate of the center of each of the cells, lines or character lines; performing matching by rotating the feature on a unit of 90° basis; and correcting the feature by a micro angle. By virtue of using these features, the present invention can enjoy the

advantages as described in Applicant's specification on page 13, lines 11-19. The cited references do not disclose or suggest these features as recited in the claims of the present application.

Moreover, the cited references do not disclose or suggest correcting said inputted feature by a micro angle on the basis of a micro inclination angle detected from the cells, lines or character lines, or checking a matching of the inputted feature with the registered feature, as recited in the claims of the present application.

Regarding claim 2, Applicant submits that this claim is dependent on independent claim 1 and, therefore, is patentable at least for the same reasons noted previously regarding this independent claim. For example, Applicant submits that none of the cited references disclose or suggest where the direction of the inputted form having said most coincident angle is outputted.

Accordingly, Applicant submits that none of the cited references, taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of each of claims 1 and 2 of the present application. Applicant respectfully requests that these rejections be withdrawn and these claims be allowed.

In view of the foregoing amendments and remarks, Applicant submits that claims 1 and 2 are now in condition for allowance. Accordingly, early allowance of such claims is respectfully requested.

To the extent necessary, Applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of

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this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Mattingly, Stanger, Malur & Brundidge, P.C., Deposit Account No. 50-1417 (referencing attorney docket no. 500.41075X00).

Respectfully submitted,

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.



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